

REMARKS

Claims 66-134 were previously pending with claims 69, 70, and 74-87 being withdrawn as reading on a non-elected species and claims 100-133 being withdrawn as reading on a non-elected invention. By this response, Applicant amends claims 66-70, 72, 75, 98, 99, and 134 and cancels claims 100-133 without prejudice. As a result, claims 66-68, 71-73, 88-99, and 134 are pending for examination with claims 66 and 134 being independent claims. No new matter is added.

I. Interview

Initially, Applicant's representative Walt Norfleet thanks the Examiner for his courtesy in conducting a telephone interview on September 12, 2007. During the interview, the applied references and the subject matter of claims 66 and 134 were discussed. Comments made during the interview are summarized throughout the remarks herein.

II. Rejections Under 35 USC 112 Are Overcome

Claims 66-68, 71-73, 88-99, and 134 stand rejected under 35 USC 112 2nd paragraph as being indefinite.

In claims 66 and 134, the phrases "calculating proportions of a first and a second emission signal" and "on a side of a timing event" form the basis of the objection. These terms are deleted from each of claims 66 and 134. As amended, each of claims 66 and 134 instead recite identifying a proportion of the first detection signal that corresponds to a distance of the detection zone that has been traversed by the label of the first unit specific marker at the timing event. The claims further define that the proportion of the first detection signal is identified by comparing a part of the first emission signal that is detected before the timing event and a part of the first emission signal that is detected after the timing event. Similar language is included for the proportion of the second detection signal. This language is believed to address the concerns raised in the Office Action and finds support within the specification at least at Figures 9 and 10, as discussed during the interview, and paragraphs [0093] to [0113] as numbered in corresponding published application US2004/0235014. Accordingly, withdrawal of this rejection is respectfully requested.

In claims 67 and 68, the word “portion” as found in the phrase “a first portion” form the basis of the objection. The phrase “a first portion” is deleted from the claims. As amended, claims now recite “the part of the (first or second) first emission signal that is detected before the timing event by all of the (first or second) emission signal, which is believed to address the concerns raised in the Office Action. Accordingly, withdrawal of this rejection is respectfully requested.

In claim 98, the feature “reset time” is objected to as lacking antecedent basis. Claim 98 is now amended to depend from claim 75, which provides antecedent basis for the term “reset time”. Accordingly, withdrawal of this rejection is respectfully requested. Applicant notes that claim 98 now depends from a withdrawn claim, and may also be withdrawn by the Examiner.

In claim 99, the feature “the detection distance” is objected to as lacking antecedent basis. Claim 99 is now amended to recite “zone distance” instead of “detection distance” to provide proper antecedent basis. Accordingly, withdrawal of this rejection is respectfully requested.

III. Rejections Under 35 USC 101 Are Overcome

Claims 66-68, 71-73, 88-99, and 134 stand rejected under 35 USC 101 for not providing a useful, concrete, and tangible result.

Claims 66 and 34 are each amended to recite the step of outputting an indication of the separation distance to a user. These amendments are believed to be consistent with those suggested in the Office Action for clarifying that the claims include a step of physical transformation. Accordingly, withdrawal of this rejection is respectfully requested.

IV. Rejections Under 35 USC 102(e) Are Overcome

Claims 66-68, 71-73, 88-99, and 134 stand rejected under 35 USC 102(e) as being anticipated by Chan (US 6355420). Claims 66-68, 71-73, 88-99, and 134 also stand rejected under 35 USC 102(e) as being anticipated by Gilmanshin (US 6263286).

As amended, claim 66 defines a method for analyzing a polymer that comprises, among other aspects, detecting a first emission signal that is emitted by a label of a first unit specific

marker when the first unit specific marker is present in a detection zone. The method also comprises identifying a proportion of the first emission signal that corresponds to a distance of the detection zone that has been traversed by the label of the first unit specific marker at a timing event. The proportion of the first emission signal is identified by comparing a part of the first emission signal that is detected before the timing event and a part of the first emission signal that is detected after the timing event. Similar amendments are made to more clearly define detecting a second emission signal when a label of a second unit specific marker is present in the detection zone and identifying a portion of the second emission signal that corresponds to a distance of the detection zone that has been traversed by the label of the second unit specific marker at the timing event. Support for these amendments may be found within the specification at least at Figures 9 and 10, as discussed during the interview, and paragraphs [0093] to [0113] as numbered in corresponding published application US2004/0235014.

Claims 66-70, 72, and 75 are amendment to be consistent with the amended language of claim 66.

Claim 134 is amendment in a manner consistent with claim 66.

As discussed during the interview, Chan relates to measuring the length of time that elapses between detection of a first signal (i.e., from the label of a first unit specific marker) and a second signal (i.e., from the label of a second unit specific marker), as is discussed generally at column 8, lines 40-48. Such a technique may relate to measuring a length of time that elapses between points of time when labels are present in a detection zone. However, there is no teaching or disclosure in Chan of identifying a proportion of a first emission signal that corresponds to a distance of a detection zone that has been traversed by a label of the first unit specific marker at a timing event, as claim 66 and 134 are amended to recite. Similarly, there is no mention of identifying a portion of the second emission signal that corresponds to a distance of the detection zone that has been traversed by the label of the second unit specific marker at the timing event.

For at least the above reasons the rejection of claim 66 and 134 in view of Chan is overcome. Any claims depending from claim 66 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

As pointed out in the Office Action, Gilmanshin relates to generating a plurality of object dependent impulses as a labeled object pass a station, like a detection zone. (See generally, column 5, lines 50-62 and claim 1). Gilmanshin utilizes an autocorrelation function of the plurality of object dependent impulses to analyze the object, which may include a polymer. (See generally, column 5 lines 50-62 and claims 1 and 3). However, Gilmanshin does not teach or disclose identifying a proportion of a first emission signal that corresponds to a distance of a detection zone that has been traversed by a label of the first unit specific marker at a timing event, as claim 66 and 134 are amended to recite. Similarly, there is no mention of identifying a portion of the second emission signal that corresponds to a distance of the detection zone that has been traversed by the label of the second unit specific marker at the timing event.

For at least the above reasons the rejection of claim 66 and 134 in view of Gilmanshin is overcome. Any claims depending from claim 66 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

V. Non-Statutory Obviousness-Type Double Patenting Rejections Are Overcome

Claims 66 and 134 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of Gilmanshin.

As discussed above, Gilmanshin does not have any teaching or disclosure of identifying a proportion of a first emission signal that corresponds to a distance of a detection zone that has been traversed by a label of the first unit specific marker at a timing event, as claim 66 and 134 are amended to recite. Similarly, there is no mention of identifying a portion of the second emission signal that corresponds to a distance of the detection zone that has been traversed by the label of the second unit specific marker at the timing event.

For at least these reasons, the rejection of claim 66 and 134 in view of Gilmanshin is overcome. Accordingly, withdrawal of this rejection is respectfully requested.

VI. Rejections Under 35 USC 102(f) Are Overcome

Claims 66-68, 71-73, 88-99, and 134 stand rejected under 35 USC 102(f) in view of Gilmanshin.

As discussed above, Gilmanshin lacks any teaching or disclosure toward identifying a proportion of a first emission signal that corresponds to a distance of a detection zone that has been traversed by a label of the first unit specific marker at a timing event, as claim 66 and 134 are amended to recite. Similarly, there is no mention of identifying a portion of the second emission signal that corresponds to a distance of the detection zone that has been traversed by the label of the second unit specific marker at the timing event.

For at least these reasons, the rejection of claim 66 and 134 and any claims depending therefrom in view of Gilmanshin is overcome. Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

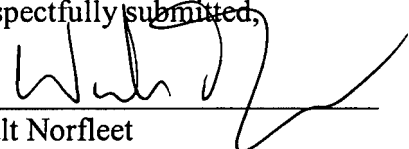
In view of the foregoing remarks, this Application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this Response, that the application is not in condition for Allowance, the Examiner is requested to call the undersigned attorney or agent at the telephone number listed below.

If this response is not considered timely filed, and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an Extension fee that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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